Conducting The Breakthrough: Unnecessary Operation or U.S. Doctrinal Void?

A Monograph
by

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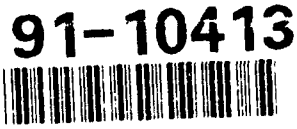

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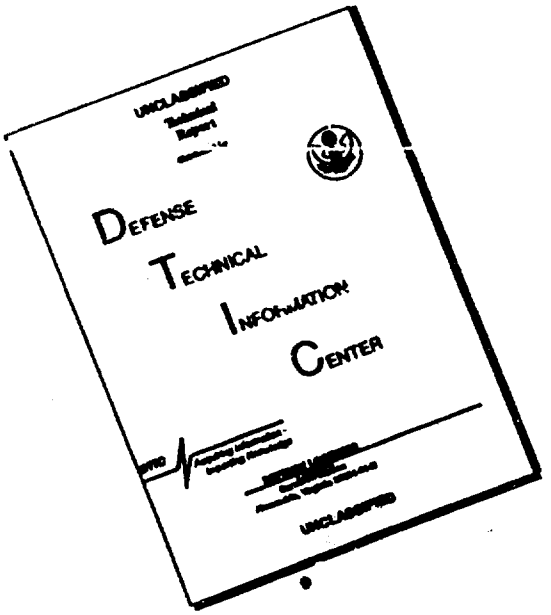

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ABSTRACT

Conducting the Breakthrough: Unnecessary Operation or U. S. Doctrinal Void?, by Major Eric D. Hutchings, 59 pages.

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INTRODUCTION

Do breakthrough operations have a role in the U.S. Army doctrine? In U. S. Army military lexicon the term breakthrough does not exist. Yet the world's other major superpower, the Soviet Union, devotes considerable attention to the study and analysis of breakthrough operations. Soviet military writings describe breakthrough operations as:

> ...a theory of the offensive operation in depth... [Consisting of] penetration of an enemy defense to the full tactical depth, breaching and smashing of the enemy's defense frontage ... engagement of the breakthrough exploitation force... to achieve rapid penetration of offensive forces to an operational depth, destruction of approaching reserves, command and control facilities, and supply depots...to deprive the enemy of the opportunity to establish a defense along a new line.[1]

The U.S. Army capstone document, FM 100-5, maintains that Army doctrine has universal application. FM 100-5 further suggests that an enemy usually can be maneuvered into a position in which a vulnerable flank will be exposed to attack. The implication is that the U.S. Army will always initiate hostilities from a hasty defense. Accepting this premise, it is reasonable to conclude that breakthrough operations are not a doctrinal necessity in the U.S. Army.

Certainly FM 100-5 reflects the battlefield conditions the U.S. Army has faced in the European theater the last 35 years. These conditions demand that the U.S. Army remain on the operational defensive against a numerically superior opponent. The nature of offensive operations required in this environment would logically consist only of counterattacks against

penetration, and perhaps a limited counteroffensive. Yet, the historical analysis of this study will show there is an inherent requirement to conduct offensives to an operational depth against an echeloned enemy defense. Hence, the utility of breakthrough operations to the U. S. Army and the necessity for incorporating such operations into doctrine will become apparent.

In order to transform the essence of breakthrough operations into doctrine, the factors necessary to conduct such operations must be determined. This monograph will determine those factors. The categories of evidence that will be examined in this regard will consist of relevant military history and theory.

First, the relevant theory will be analyzed in search of principles which might govern breakthrough operations. The principles derived from theoretical analysis will be used as criteria to examine the historical evidence. Next military history on breakthrough operations will be reviewed. Based on the historical analysis, conclusions will be drawn on the factors that govern successful breakthrough operations. Finally, implications will be drawn regarding the update of doctrine, thus insuring the utility of doctrine as a sound departure point for future military operations. Proceeding now with the examination of breakthrough operations, we find its theoretical roots in the post-World War I Soviet Union.

BREAKTHROUGH THEORY

Following World War I, the Soviet Union proved to be especially fertile ground for the evolution of military thought. Within the Soviet Union, the Bolshevik revolution had purged much of what was traditional in Russian society. Thus, great opportunities were available to explore innovative new

theories without the usual impediments posed by an established order.[2]

Two theorists leading military thought within the Soviet Union were V. K. Triandafillov and Mikhail N. Tukhachevsky.[3] These men would mutually develop a Soviet model for breakthrough operations. The writings of Triandafillov and Tukhachevsky on the future of war greatly complemented each other. In fact, Triandafillov first came under the tutelage of Tukhachevsky while a student at the Military Academy of the Workers' and Peasants' Red Army where Tukhachevsky served as chief.[4]

For over ten years the works of Triandafillov and Tukhachevsky would intertwine and support each other. In this regard Triandafillov would establish the basic framework of theory with Tukhachevsky refining and augmenting Triandafillov's works.[5]

Triandafillov's analysis of the World War I experience, along with the revolution, and the war with Poland, led him to anticipate requirements for conducting breakthrough operations on battlefields of the future. Triandafillov developed a theoretical framework for breaking the stalemate caused by the increasing lethality of the battlefield. I have selected six basic principles which capture his theoretical views. These principles are:

1. Successive operations
2. Simultaneity of attack
3. Operational exploitation of tactical success
4. Deep battle
5. Concentration
6. Unity of command

Looking at the first of these principles, the key to successive operations was to develop a force structure and an operational plan in which, first, a penetration would be made of enemy defenses. Second, exploitation and pursuit of enemy forces would follow

without pause. The shock army would be the mechanism for conducting this breakthrough operation. According to Triandafillov:

> One must envision an unavoidable change in the situation during combat actions for operations designed to go to great depth and pursuing decisive goals: unavoidable reinforcement of the enemy, an increase in the density of his front, appearance of an entire series of positions reinforced hurriedly and beforehand on the routes of advance. From the very outset, a shock army must have all those resources that will permit it, without loss of time, to organize an uninterrupted blow in any situation possible during planned operations.[6]

Equally important to Triandafillov's concept was simultaneity of attack. He maintained that it was essential to the success of the breakthrough that the enemy front be pinned down to prevent the reinforcement or withdrawal of the enemy in the vicinity of the penetration. Triandafillov wrote that:

> ...a series of successive operations designed to a great depth requires that the damage inflicted on opposing forces in the very first (initial) operation be such that it will free the attacker's hand relative to the remaining enemy front. Hence the great significance of combinations of blows directed from both sides, on intersecting axes, against the enemy group of forces we have selected as the object of actions in order to seize in a double envelopment, encircle, capture, and destroy this portion of enemy forces.[7]

In Triandafillov's view, it was only with simultaneous successive operations that the operational exploitation of tactical success could occur. A penetration that could not immediately be exploited would once again result in stalemate. In Triandafillov's words:

> ... immediate infliction of a second, third, and subsequent blows on the heels of the first must be envisioned to bring the enemy to complete defeat. The ideal would have to be to plan the actions of friendly armed forces in such a way that, employing a series of crushing blows carried to their conclusion, they would lead to the complete defeat of the enemy, to his complete capitulation.[8]

Triandafillov's final concept of deep battle was predicated on the success of the tactical penetration and the ability to follow up the exploitation and pursuit without pause. Triandafillov believed that an army's ability to transition from the penetration and then conduct the knockout blow by pursuing and annihilating the enemy depended on mobility. He determined that the mobility of the army conducting the breakthrough must be superior to the mobility of the opposing army. According to Triandafillov:

> The rate of advance not only must not be less than, it must exceed, the possible rate of an enemy withdrawal in order to achieve encirclement of the enemy, in order to deprive him of the chance to slip from under the blow. Otherwise, any operation (more correctly a series of successive operations) designed to envelop, turn the flank of, or encircle the enemy very rapidly will lead to a frontal blow.[9]

Elaborating further on the concept of mobility, Triandafillov recognized that the Soviet military did not yet possess the necessary mechanization required to facilitate rapid movement. Triandafillov acknowledged that current western armies might have the commensurate mechanization, but for the Soviets that degree of mechanization lay somewhere in the future. Triandafillov termed the partial mechanization of the Soviet military as a "mechanized front and a peasant rear". This label captured the essence of Triandafillov's criticism that an army is as mobile as its lowest common denominator. Thus, armored battalions supported by horse drawn artillery were really only as mobile as the horse.[10] Triandafillov argued strongly for increasing mechanization to achieve superior mobility.

This dichotomy between mechanized front and peasant rear also touched upon another principle integral to Triandafillov's theory: the principle of

concentration. According to Triandafillov, forces must be sufficiently dense at the point of attack to overwhelm enemy defenders. In Triandafillov's words:

> An offensive operation undertaken with an insufficiently dense front will bog down, it will flounder, as soon as new enemy forces confront the advancing troops.[11]

Of course, a force that was not uniformly mobile would have trouble concentrating forces at the point of attack. It would also have difficulty orchestrating the exploitation and pursuit of the enemy.

For Triandafillov, concentration was not only a function of the density of attacking forces but also of the density of defending forces. It was important to attack at the weak point. The offensive mass had to be vast enough to engage immediately the enemy in a decisive manner. If the enemy was not engaged decisively he would have reserves and other forces available to form a new front around the penetration, or to counterattack. Triandafillov expressed in numbers just how much of a defending force must be initially engaged:

> The first blow must engage at least 1/2, minimum 1/3, of the enemy forces occupying a given front to deprive the enemy of the capability to make a wide maneuver with reserves. To do so, the attack frontage must be so wide that the liquidation of the resultant breakthrough will require forces equal to another third or the other half of his forces.[12]

Essential to Triandafillov's theory was the principle of unity of command. Because of the enormity of the offensive operations envisioned by Triandafillov, unified command would be critical to mission accomplishment. The aspects of orchestrating successive operations and building tactical engagements towards a common operational goal could only be woven together with the unified command of all required

forces. Triandafillov used the term "front" to express the collection of armies required to conduct the main effort of a breakthrough operation. Triandafillov maintained that the direction of all armies in a major operation must come under the command and control of a front commander.[13]

Triandafillov's mentor, Mikhail Tukhachevsky, elaborated upon his theoretical base. In 1930, Tukhachevsky even wrote a review for one of Triandafillov's books. After Triandafillov's untimely death in a plane crash, Tukhachevsky would continue to develop this theory of offensive operations.[14]

Tukhachevsky repeated the same general theme of Triandafillov's theory. He added substance and detail to the framework already established.[15] Tukhachevsky refined Triandafillov's model in three major areas and added another principle. These areas refined by Tukhachevsky were deep battle, logistical support of the shock army, and articulation of the broad front strategy. The principle that Tukhachevsky added was surprise.

In regards to deep battle, Tukhachevsky looked to emerging technology as a means for striking into the depth of the enemy's defenses.[16] In the vicinity of the penetration, Tukhachevsky envisioned motorized units and self-propelled artillery transitioning without pause to exploit and attack through the enemy's operational depth.[17] Ground forces would be augmented by bombers and aircraft-delivered paratroopers who would interdict enemy reserves and block escape routes. Using these forces to contain the enemy operationally was essential to Tukhachevsky's deep battle concept.

In Tukhachevsky's words:

> New means of warfare, chiefly airborne, motorized, and mechanized assault landing forces (aviamotomekhaniztsiya) create new potential in the destruction of armed enemy forces. Battle in depth becomes possible, creating conditions for a new plane of operational art which insures the possibility of inflicting a decisive, irreparable defeat upon enemy forces.[18]

Tukhachevsky realized the necessity of providing the proper logistics support to breakthrough operations. Expanding upon the Triandafillov's theme of "mechanized front and peasant rear," Tukhachevsky touted the accomplishments of the ongoing Soviet five year plan which was modernizing the Soviet war machine.[19] Historical analysis had identified logistics as a recurring source contributing to the failure of breakthrough operations. Tukhachevsky noted that successive operations were not possible without the proper logistics preparation beforehand. Tukhachevsky noted:

> Briefly, the operation or sequentially conducted operation should be provided complete logistical support at least in the decisive direction of the attack. The command group that has undertaken the operation and drawn up the operational plan but has not coordinated it with respect to logistics is criminal in its actions.[20]

Tukhachevsky also elaborated upon the necessary conditions required to conduct operations which facilitate simultaneous deep attack. Tukhachevsky maintained that a broad front strategy set these terms. According to Tukhachevsky:

> In order to make effective use of its superiority of forces and inflict a decisive defeat upon the enemy, it is necessary to commit these forces into action along abroad front, i. e. to "scatter" them from the point of view of the old theory. A broad front is necessary in order that a large force or, in any case, a considerable portion of the enemy force be subjected to destruction, and also in order that it be possible to commit into action still greater, overwhelming friendly forces.[21]

Tukhachevsky believed that surprise could provide an attacking force the decisive edge in the conduct of the breakthrough. The benefits of surprise provided an attacker with a period of time in which to act while the opposing force sought to recover from the inaction or incorrect action prompted by the deception. Tukhachevsky wrote:

> Large mechanized units...capable of turning an enemy's flank rapidly and with overwhelming force...can with the observance of surprise make such enveloping operations appear difficult to beat off.[22]

Tukhachevsky was purged prior to World War II by Stalin who had become paranoid of his officer corps. Along with this purge, the joint theories of Tukhachevsky and Triandafillov were deemphasized.[23] In spite of this setback to theory, Soviet defeats at the beginning of the war were so devastating in scope that breakthrough theory was eventually resurrected and employed with much success in combat against the Germans. Today Soviet theory on breakthrough operations still has relevance.

By using some of the principles which have surfaced in our assessment of Soviet theory, it is now possible to examine their validity against the backdrop of history. Using these principles as a yardstick, we can now analyze some successful breakthrough operations.

FRAMEWORK FOR THE ANALYSIS OF BREAKTHROUGH CAMPAIGNS

Seven principles stand out through the meld of theoretical views discussed in the previous chapter. These seven principles will be used to assess selected breakthrough campaigns. The principles used for

analysis will be:

1. Surprise
2. Simultaneity of attack
3. Concentration
4. Successive Operations
5. Operational exploitation of tactical success
6. Deep Battle
7. Unity of Command

When analyzing the various campaigns, surprise for our purposes will denote necessary secrecy and deception measures designed to confuse the enemy as to the place and time of an attack. For simultaneity of attack the campaigns will be evaluated as to the success of pinning down enemy forces on a broad front and obtaining the commitment of enemy reserves. Concentration will discuss the enemy and friendly force ratios and the attack frontages employed at the main effort. Assessment of successive operations will look at organizational force structure, the ability of the force to transition from one phase of the operation to another, and the logistical structure of the force to support operations. Incorporated in this assessment of operations will be limiting constraints to force movement, designated attack objectives, and anticipated depths of attack. Concerning operational exploitation of tactical success, analysis will focus on the planning of the initial tactical engagement which would set the conditions for exploitation. Also assessed will be planned exploitation means and measures.

Deep battle assessment will measure the capabilities displayed by ground exploitation forces, artillery, and air forces to interdict the enemy force throughout its depth. Unity of command will address the capability of operational commander to influence the necessary tools to shape the battlefield.

Three historical examples of breakthrough operations will be analyzed using the seven principles

as criteria. We will find that in all three instances surveyed, the breakthrough operations conducted restored mobility to the respective battlefields.

Of the three breakthrough operations surveyed, two are Soviet operations. The first Soviet operation analyzed is the Battle of Pogoreloye Gorodishche which occurred in August 1942. The second Soviet operation is Lvov-Sandomir which took place in July 1944. The assessment of a Soviet breakthrough operation early in World War II and then an operation late in war will illustrate the tremendous progress and refinement made in application of Soviet breakthrough doctrine. The third breakthrough operation that will be assessed is the U.S. operation "Cobra" which occurred in July-August 1944 in France. Assessment of the "Cobra" operation provides the analysis a wider frame of reference by looking at a non-Soviet approach to breakthrough operations.

In all three breakthrough operations, lack of vulnerable flanks, restrictive terrain, immense obstacle networks, and the echelonment of enemy forces in depth prohibited the conduct of other types of offensive operations. All three operational environments assessed had the full array of lethal weaponry, ground mechanization, and air threat. In this manner, the operations analyzed will reflect conditions which parallel the contemporary AirLand battle environment.

HISTORICAL REVIEW OF BREAKTHROUGH OPERATIONS

Pogoreloye Gorodishche

During the summer of 1942, the Soviet Army was positioned approximately 200 kilometers west of Moscow. Throughout the spring and summer the Soviets strengthened their defensive positions while preparing for the forthcoming offensive against the Germans.

The Western Front under General Zhukov was directed by the STAVKA of Soviet Supreme Headquarters to conduct an offensive against the Germans.[24] The Western Front was to attack in conjunction with the Kalinin Front operating to the north.

The Western Front was directed to attack with two armies abreast on a frontage of 24 kilometers with an axis of advance centered on the town of Pogoreloye Gorodishche (see map page 56). The immediate objective of the Western Front was to break through enemy defenses and proceed to the Vazuza River. General Zhukov selected the Thirty-First Army to attack in the north and the Twentieth Army serving as the main effort to attack in the south. The mission of the Twentieth Army under Lieutenant General Reyter was to advance to Sychevka on the Vazuza River 60 kilometers west.[25]

SURPRISE

Integral to the success of Lieutenant General Reyter's plan was a deception plan aimed at hiding the 20th Army's main attack. The main attack would be on the Army's right flank. In order to portray another picture for the enemy as Reyter massed forces in the northern sector, no Soviet communications or daily reports mentioned the arrival of these units. In order not to arouse German suspicions only limited aerial reconnaissance was conducted over the main attack sector.

To divert German attention from the region of the main attack, significant aerial reconnaissance was flown to the south. Also in the south increased activity was directed with little effort directed at concealment. Any German reconnaissance aircraft flying over this sector was heavily engaged. This conveyed the impression to the Germans that considerable preparations were being undertaken in this sector.

Finally, just prior to the offensive, tractors and a few tanks working at night feigned the assembly of large armor formations. During daylight smoke screens were laid pretending to cover this non-existent assembly. The deception paid great dividends as considerable German air and ground power was diverted initially against the assumed concentrations.[26]

SIMULTANEITY OF ATTACK

The Soviets intended to place the Germans on the horns of a dilemma by attacking along a broad front, engaging and pinning down as many German forces as possible. This was orchestrated by having the Thirty-First Army attack first to draw German forces north. Three days later the Front's main attack would be conducted by the Twentieth and Fifth Armies in the center and finally several days later the Thirty-Third Army would conduct a supporting attack further south.

Once executed, these broad ground attacks along with air and artillery strikes decisively engaged many German forces immediately. Thus, the Germans had to respond virtually everywhere across a broad front. This weakened the depth of the German defense as the frontline defensive positions were stretched thin. The Soviet style of attack also forced early commitment of many operational and tactical reserves. As a result the breakthrough by Soviet forces of German frontline defenses was swift without significant casualties.[27] In spite of initial success in engaging most German forces this broad and simultaneous attack did not force the Germans to commit all available reserves as hoped. Significant German forces within the depth of the defense were still able to mass sufficiently and eventually blunt the Soviet offensive.[28]

CONCENTRATION

For this attack the Twentieth Army would employ seven rifle divisions, five rifle brigades, five tank brigades, one bicycle-motorcycle brigade, and one engineer brigade. Facing the Soviets were elements of the German 161st Infantry and 36th Motorized Divisions. German defenses were 5 to 8 kilometers deep and consisted of fortified belts. The zone was defended by fourteen battalions. In the eight kilometer sector of the Soviet main effort four German battalions were defending.[29] Against this sector, the Twentieth Army deployed 35 battalions and 225 tanks against German defenders . This achieved a 10-1 ratio of forces and an artillery density of 122 gun and mortar tubes per kilometer.[30]

SUCCESSIVE OPERATIONS

The final objective of the Twentieth Army was to seize the town of Sychevka. Intermediate objectives were to break through the German frontline forces, destroy German forces in vicinity of Karmanovo, and cross the Vazuza River. For the Soviets to conduct an attack to a depth of 60 kilometers against an aggressive and mobile opponent, it was necessary for them to seize the initiative and maintain continual forward momentum against the German defenders.[31]

In order to maintain this momentum, Soviet forces took steps to avoid premature culmination of the offensive. Critical to sustaining the momentum would be the continual forward flow of logistics.

To prevent offensive culmination, significant planning had gone into supplying successive operations. For purposes of moving ammunition, POL, and rations forward the Twentieth Army had 605 trucks. These were scheduled to make two trips a day for a total of 1210 truck loads of supplies. To refill all Twentieth Army

vehicles 528 tank trucks were required. To provide daily rations 380 trucks were required. Finally, one unit of fire for the Twentieth Army required 2450 trucks to move. Tactical units commenced the battle with a basic load for two days fighting.[32]

Under less than ideal circumstances 605 trucks would not be adequate to supply the Twentieth Army during successive operations. Unfortunately for the Twentieth Army inclement weather would also prove to be a tremendously inhibiting factor during this offensive.

The Western Front offensive was delayed five days due to heavy summer rains. Anticipating difficulty in advancing under these unfavorable weather conditions, additional engineer support was provided to the Twentieth Army on the eve of the attack. However, as the offensive progressed and the rain continued, the limited road network in the Twentieth Army's sector was quickly turned into a morass. Wheeled supply vehicles found it increasingly difficult to negotiate mud-choked roads to keep up with the leading armor units.[33]

By the evening of 6 August, the third night of the offensive, the combat troops of the Twentieth Army were almost totally without ammunition. Limited resupply was conducted by horse drawn carts and leading mobile groups had fuel and ammunition parachuted to them by aircraft. These alternate methods were insufficient to sustain the force. Eventually the railroad into Pogoreloye Gorodishche became operational but resupply to the west for frontline troops still depended on the difficult water-logged road network. In this instance logistic shortfalls caused by inclement weather proved extremely detrimental to the conduct of successive operations.[34]

OPERATIONAL EXPLOITATION OF A TACTICAL SUCCESS

In order to conduct this offensive to the depths specified, the Soviets required a fluid battlefield. The German defenses could not be allowed to reinforce and dig in around the initial Soviet penetration. Constant Soviet pressure and momentum was required to prevent the Germans from reestablishing a cohesive defense. The tool utilized by the Soviets to prevent the Germans from containing the rupture of their defense was the mobile group.

The mobile group was a temporary command arrangement built upon several armor units and augmented with other motorized forces. It was designed to be committed through a tactical penetration and serve as a highly maneuverable exploitation and pursuit force.

Assisting the Twentieth Army were two mobile groups. The Arman Mobile Group (named after the commander) was formed out of several tank brigades and a motorcycle-bicycle brigade. It was deployed in the second echelon. This mobile group was under the control of Twentieth Army. The Arman Mobile Group was to move with the second echelon and push through the penetration created by first echelon forces. More specifically, the Arman Mobile Group was to move far into the depths of the German defense securing river crossings across the Vazuza and Ghast Rivers in order to facilitate forward movement of the Twentieth Army.[35]

At Front level the Galinin Mobile Group was formed out of two armored corps and a cavalry corps. The Galinin Mobile Group was under the control of the Front commander. Its intended use was to follow the first and second echelon forces and then punch through remaining German forces to seize the town of Sychevka.

This town was the final objective of Twentieth Army and far into the operational depth of German forces. A breakthrough of this magnitude by the Soviets would require the withdrawal and re-positioning of all German forces across the front.[36]

DEEP BATTLE

Having described how the Soviet Twentieth Army intended to transform a tactical engagement into an operational success, let us now detail the results of Soviet engagements after the penetration of the German tactical defense. The Soviet concept of deep battle incorporated long range artillery and air strikes in conjunction with mobile groups. These Soviet deep battle assets were designed to preempt, disrupt, and immobilize the German forces in tactical depth that could have influenced the battle. Of particular interest for targeting were German reserves and counter-attack forces. By 5 August, Soviet first echelon troops had created a breach in German defenses 30 kilometers wide and 25 kilometers deep.[37] The conditions were now set for deep battle.

Because of the inclement weather, the limited road network was significantly degraded during the advance of Soviet first echelon forces. Soon roads were only trafficable to tracked vehicles. Because of these terrible road conditions, air force liaison officers, anti-aircraft batteries, and supporting artillery (all traveling in wheeled vehicles) were unable to keep up with advancing tracked vehicles of the mobile groups. In this manner the mobile groups lost their combined arms dimension, became increasingly single-faceted, and easier for Germans to defend against.[38]

Another limiting effect upon the employment of mobile groups during this operation was the novelty of the concept to the rank and file Soviet soldiers and officers executing the operation.[39] Having already

described the ad hoc nature of the mobile group, the prevailing Soviet thought was that mobile groups could be immediately constituted from forces at hand. Reinforcing this mindset were the adverse weather conditions and the increasingly impassible road networks which tended to separate units. Accordingly, during the operation the Arman Mobile Group was given more assets, transformed into the Tyurin Mobile Group, and allocated a different mission.[40] Limited familiarity with the role of mobile groups and support of such operations led to premature employment and piecemeal use of the group's armor shock power.[41]

Soviet Air Forces participating in the deep battle effort of the Twentieth Army consisted of three air divisions: one bomber, and two ground attack. To maximize the time over target, ground attack units were pushed 30-50 kilometers from the front and bomber units 90-120 kilometers from the front.[42]

In spite of the large amount of air support provided this offensive, the Soviets were never able to obtain more than air parity with German forces. The Soviet fighter cap sent to protect ground forces from enemy air attack and to escort Soviet bombers was limited and flying at extreme range. As a result, attrition of Soviet air and ground forces by German air was heavy. Additionally, Soviet air strikes were often so deep beyond tactical depth that they were unconnected with the efforts of advancing ground forces.[43] Air support was also increasingly limited for advancing mobile groups by poor weather conditions.

The Twentieth Army was unable to exploit the tactical penetration to achieve the operational affect initially planned. Although the offensive was relatively successful, deep battle operations fell short of anticipated gains and did not facilitate the

capture of the town of Sychevka. While the front commander had committed the Galinin Mobile group into the penetration, adverse weather conditions restricted their movement, greatly constricted their supply, and diluted their air, artillery, and air defense support.[44] Birth pains associated in operating mobile groups also limited their effectiveness. As a result, the Germans were able to shift panzer forces to halt the Soviets short of Sychevka and contain the Soviet advance. The deep battle proved to be indecisive.

Although the Twentieth Army was not able to push the breakthrough as far as Sychevka, the Pogoreloye Gorodishche operation met Soviet strategic needs. The threat to Sychevka was dire enough for the Germans to divert units earmarked for fighting at Stalingrad to defend Sychevka. Thus, the Pogoreloye Gorodishche operation set the conditions for what would evolve into the successful Soviet offensive at Stalingrad.[45]

UNITY OF COMMAND

The quality of the command and control that the Twentieth Army commander, General Reyter, could exercise was mixed. Benifitting him in this aspect, was the attachment to his force of five additional artillery regiments from GHQ . In a similar manner, Twentieth Army had attached air assets contributing to the offensive. In an effort to make air assets even more responsive to the ground commander's needs air units were even attached down to mobile group level during certain phases of the operation. Air force ground liaisons were dispatched down to ground units in an attempt to provide ground commanders better control over attached aircraft.

Yet, one problem that impeded unity of command was the mobile group concept. Because mobile groups were ad hoc organizations they had no organic staff, command

and control apparatus, or communication facilities. The commander of a mobile group had to satellite off the existing command structure of units chopped to him temporarily. This burdened existing communications networks that were tailored for smaller organizations. Additionally, at this early stage of the war Soviet communications equipment and organization was rudimentary. The necessary control means and organization required to orchestrate the various units composing a mobile group towards a common purpose was not yet at hand.[46]

Another significant problem was the absence of a command and control element between army and division. Thus, an army commander had difficulty with span of control when orchestrating seven or eight divisions.[47]

Detracting further from unity of command was the proliferation of small artillery and air defense detachments at various levels throughout the Soviet force structure. This dispersal of assets proved detrimental to their management and command.

LVOV - SANDOMIR

The Lvov-Sandomir offense in July of 1944 was the latest in a two-year string of Soviet operational offensives against the Germans (see map page 57). These operations had been conducted virtually unabated since Pogorelove Gorodishche. Only during reconstitution, planning, and preparation did Soviet forces assume the temporary defensive. In this manner all along the Eastern Front German forces were attacked incessantly.

For the Lvov-Sandomir offensive the 1st Ukrainian Front was to conduct a two-pronged main effort towards Lvov and Rava Russka and a secondary effort south towards Stanislav. The two-pronged main effort was to be conducted by the Sixtieth Army with the XV and XXVIII Corps attacking on a 10 kilometer front. These

two corps were to attack to penetrate German defenses at a point two kilometers south of Gnidava; then advance first toward Zolochev and finally to Lvov, a further 90 kilometers to the west. The army's supporting effort would be two divisions from XXIII Rifle Corps attacking further to the south on a 17 kilometer front from Gnidava to Podkamen.

The 1st Ukranian Front intended to commit the Third Guards Tank Army as a mobile group to exploit the breakthrough of the main effort. If the main attack proved successful the XV and XXVIII Rifle Corps would then be diverted northward to assist XXIII Corps in encircling German troops around Brody.[48]

SURPRISE

The Sixtieth Army would conduct its main effort on terrain presumably unsuited for armor and mechanized attack. This would facilitate surprise. Initially the ground was uneven with many rivers and streams. Five to six kilometers west the front was completely wooded. The road system was poor and only one road was suited for truck movement.[49] In an attempt to gain surprise, troop movements to the front were conducted only at night on the four evenings prior to the offensive. The Germans were able to detect the buildup of Soviet forces but were unable to anticipate the time or the magnitude of the Soviet attack.[50]

SIMULTANEITY OF ATTACK

In order to engage decisively as many German forces as possible and inhibit the response of German mobile units to Soviet penetrations, the 1st Ukranian Army Group attacked on a broad front. Instrumental to the success of this plan was to force the numerically inferior Germans to defend everywhere along a vast frontage of attack, and thus exploit weak spots that would have to develop as the offensive continued.[51]

Initiating the offensive for the 1st Ukranian Army Group was the Thirteen Army in the North, followed two days later by the Sixtieth Army as the main effort in the center, and finally the Thirty-eighth Army in the south. This cascading of forces was designed to draw German mobile units to the north and get them engaged away from the Front's main effort in the center.[52]

CONCENTRATION

Having endured repeated Soviet breakthrough offensives since 1942, German defensive concepts had evolved to counter such operations. At Lvov-Sandomir, German defenses were significantly deeper and more fortified than those employed earlier at Pogoreloye Gorodische. The Germans developed a massive defense at Lvov-Sandomir in three successive zones designed to slow the momentum of the offensive. Two of these zones (each 6 kilometers deep) consisted of the German tactical defense which was over 20 kilometers deep. A third zone was still in preparation behind the tactical defense when the offensive commenced.[53]

To counter these deeper defenses the Soviets added more depth to their attacking echelons. Because of the narrow sector undertaken by the main breakthrough, XV Rifle Corps engaged only four to five infantry battalions, seventeen to twenty supporting artillery batteries, and approximately twenty tanks.

Against this defense, XV Rifle Corps forces had a 5:1 ratio in artillery and infantry, as well as a 1.5:1 ratio in tanks and assault guns. One hundred twenty-one aircraft of the 5th Guards Ground Attack Division supported directly XV Rifle Corps' ground attack and faced an insignificant German air cap.[54]

Only in the unlikely event that the Thirty-Eight Army's attack in the south failed would two enemy operational reserve divisions be committed against

Sixtieth Army's main effort (XV Corps). The one other remaining German division acting as part of the reserve, if committed against XV Rifle Corps, would only temporarily outnumber the Soviets in the penetration. Upon commitment of the Sixtieth Army's Mobile Group (Third Guards Tank Army) into the salient, the force ratios would once again swing massively to Soviet advantage. In the penetration there would be an overwhelming 5:1 ratio in manpower, and 6:1 ratio in tanks.[55]

SUCCESSIVE OPERATIONS

To lay the foundation for this offensive and maintain a continuous offensive momentum, the Sixtieth Army required a substantial logistics base. Through recent years of practical experience, the Soviets had tailored the force structure of their combat organizations to better support successive operations. Mobile groups were no longer ad hoc organizations thrown together for a temporary purpose, but robust tank armies. Tank armies now had their own dedicated communication, staff, and logistics tail. This design facilitated the conduct of successive operations and independent action.[56] Even tank battalions attached to infantry units had their own rear services. Munitions carried by attacking forces averaged between two and three units of fire depending on the weapon system and anticipated usage.[57] The Sixtieth Army sustainment package was designed to support a main effort of 26 kilometers deep on the first day.[58]

Heavy summer rains hindered the advance of Sixtieth Army while sparse road networks and surrounding fields turned into a muddy morass not unlike the conditions which slowed the Poonreiove Gorodische offensive. Yet, for the Lvov-Sandomir operation maintenance personnel and recovery equipment

were now organic to many units. The skills of operators and repairman had been honed by prolonged combat experience. For the Lvov-Sandomir offensive inclement weather would not have a significant effect on the advance of Soviet forces.[59]

OPERATIONAL EXPLOITATION
OF A TACTICAL SUCCESS

The Third Guards Tank Army was designated as the mobile Group for the Sixtieth Army.[60] The tank army was to be used to exploit the penetration of the first two German zones of defense made by XV Rifle Corps. Upon breaching these two defense zones XV Rifle Corps was to set up a strong anti-tank defense to protect the forward movement of the Third Guards Tank Army from expected German counterattacks.[61]

Supporting the planned exploitation of the Third Guards Tank Army would be massive airstrikes. Between 1000 and 1300 aircraft were planned to support the commitment of the tank army.[62]

DEEP BATTLE

By the second night of the operation the XV Rifle Corps had developed a penetration six kilometers wide into German lines south of Koltuv. The opening of this penetration had been greatly assisted by the support from 900 sorties of attack aircraft. The Third Guards Tank Army was committed into this corridor the following morning with the objective of moving to a line four kilometers west of Zolochev.[63]

The Koltov corridor now extended 30 kilometers into German territory and was the focus of frequent and unrelenting German counterattack. As with the Pogoreloye Gorodishche operation, the effect of Soviet artillery was significantly reduced once the advance quickened and wheeled artillery could not keep pace with leading tracked vehicles. Yet air support proved

greatly effective against German counterattacks.[64] Near Pluguv, 3,288 sorties were flown in one day. This stopped the German 8th Panzer Division from mounting a successful counterattack on the corridor.[65]

In spite of heavy German conterattacks against the corridor which required some elements of the mobile group to defend temporarily instead of attack, the Third Guards Tank Army still averaged an advance of 16-18 kilometers a day. In order to reinforce success in the Koltuv corridor, the Front Commander tripled the planned air support. Such Soviet air superiority permitted 20-30 Soviet aircraft flying over the corridor at all times during daylight hours. Contingent with this air augmentation, the Front Commander committed his own mobile group (the Fourth Tank Army) to follow in the wake of the Third Guards Tank Army and then proceed 30 kilometers beyond Lvov to seize the town of Gorodok.[66]

After only five days of operations eight German divisions and numerous independent units were in the process of being encircled in the Brody area. Soviet commanders gave orders to prepare defenses to withstand both breakout attempts from the Brody pocket and relieving counterattacks from the outside. Although German units repeatedly attempted such actions, their efforts were to no avail. Twelve days into the operation the German command ordered troops inside the pocket to surrender.[67] In order to temporarily stabilize the front, the Germans had to deploy to the rear and defend at the Vistula and Narew rivers.[68]

UNITY OF COMMAND

The offensive at Lvov-Sandomir displayed strong unity of command. Army commanders now had an interim corps level to facilitate span of control over the divisions.

Improvements in this area allowed the Front Commander to quickly move his mobile group (the 4th Guards Tank Army) to take advantage of the success gained by the 3rd Guards Tank Army moving through the Koltuv corridor. This action insured that counterattacking German units could not close this rupture in their defense.

The unity of command problem within mobile groups which had surfaced during the Pogoreloye Gorodische operation had since been rectified. The tank armies that now served as mobile groups had dedicated command and control as well as staffs. This new organization greatly improved the responsiveness and control of the mobile group as an entity and as a result the operations of the mobile group contributed directly to the Lvov-Sandomir victory.

OPERATION COBRA

In June of 1944 the Allied Armies swarmed ashore at Normandy. The immensity of this 156,000 man invasion force dwarfed other previous amphibious operations undertaken throughout history. This invasion, codenamed Overlord, was designed to gain an enclave on the Western European coast line in order to facilitate further operations against Germany. The enormity of the planning and preparation required to conduct successfully this amphibious landing diverted the attention of Overlord planners from conceptualizing follow-on operations in anything but the vaguest terms.[69]

Two months after the Overlord landing, all Allied forays to pierce the German defense had failed. The Allied enclave was tenuously supplied over the shore. Any serious interdiction would require a withdrawal of the invasion force from the continent. Furthermore, as supplies and reinforcements continued to flow ashore

the tiny Normandy beachhead became an ever increasing target-rich environment for the enemy.[70]

In their initial planning, the Allies envisioned a broad advance out of this beachhead with both the British and American armies moving abreast and pushing the Germans backward uniformly across the front. However, in execution, conditions on the ground would not facilitate this. The British were confronted with powerful German armor formations which prevented their advance; the Americans had landed in the enclave facing the seemingly impassable obstacle known as the Bocage. The Bocage consisted of a network of overgrown hedgerows which crisscrossed the Norman countryside. This Bocage was an ideal obstacle to vehicular traffic and provided a ready built system of barricades to hide and protect the German defenders.[71]

Unlike the Soviet breakthrough operations which were derived from a theoretical base, the United States Army was confronted with a situation for which its doctrine had not fully prescribed or anticipated. Contemporary American tactics at Normandy had so far brought only frighteningly high infantry casualties reminiscent of World war I.[72]

Because infantry replacements were green and unblooded, the overall skill of the infantry had diminished. Thus, inexperienced infantry was increasingly reluctant to close with the enemy in the hedgerows without overwhelming aerial or artillery firepower. To make matters worse when American armor attempted to advance along the limited avenues of approach in the Bocage, the few German Panther tanks available were able to seriously outgun the numerous American Sherman tanks.[73]

Clearly there had to be a more effective manner of punching through the Hedgerow country. The Bocage

deadlock ultimately drove the Americans to plan a breakthrough operation (code named Cobra). Operation Cobra was conducted as a last resort after the Americans had failed to bull their way out of the beachhead by other means. The American Cobra plan would concentrate power on a narrow front to penetrate enemy defenses, and then exploit deep into the enemy's rear area (see map page 58). The objective of Cobra was to open the way to the Brittany ports, set them into operation, and increase the amount of supplies and troops that could be brought to bear against the Germans.[74]

The Allied force ashore on the beachhead consisted of the British Second Army under General Sir Bernard Montgomery and the American First Army under General Omar Bradley. Both army commanders were subordinate to General Dwight D. Eisenhower, the Supreme Commander of all Allied Forces in Europe (SHAEF).[75]

Operation Cobra was part of a larger SHAEF plan which still envisioned a broad and uniform advance by the allies out of the Normandy beachhead. However, the necessary air support to assist the SHAEF advance could not be provided to both a British advance and an American advance. Therefore, the British advance (code named Goodwood) preceded the American advance by several days. Although the Goodwood offensive failed miserably, the terms and conditions it set would prove to work to the advantage of the Americans.[76]

SURPRISE

A deception plan called "Fortitude" assisted the Cobra operation. Fortitude portrayed a nonexistent army in England waiting to make another amphibious landing somewhere along the channel coast. This successful deception convinced the Germans to refrain from committing all their forces against the Normandy

beachhead trying down numerous German forces elsewhere.[77]

Technological surprise would also confront the Germans through a improvisation known as the Rhino tank. The Rhino tank was simply a Sherman tank with a modification of steel prongs on the front. This allowed the tank to batter through the Normandy hedge rows.[78]

To facilitate this surprise, Rhino tanks were not allowed to be employed prior to Operation Cobra. The Germans were willing to risk committing armor reserves to respond to the Goodwood offensive as they had determined the Bocage area would not be suitable for an American armored advance. [79] The Rhino tank would prove the Germans wrong.

SIMULTANEITY OF ATTACK

The Allies endeavored to conduct broad front attacks to break out of Normandy. Ideally such attacks would decisively engage German forces. The formidable terrain of the Bocage prevented this, however. The state of British-American coalition relations was such that cooperation between Allied armies was minimal.

It was only by accident that the British Goodwood offensive drew the commitment of German armored reserves away from the American front. As the Germans were unaware of the Rhino tank innovation, movement of their reserves to contain the Goodwood offensive seemed a reasonable risk considering the natural defensive protection of the Bocage. Ironically, this was exactly what Soviet breakthrough operations endeavored to accomplish by design with simultaneous attacks.

CONCENTRATION

Until the Cobra offensive none of the Allied broad front attacks had incorporated a concentrated breakthrough on a narrow front. For this offensive the

American First Army had the equivalent of thirteen divisions organized into four separate corps.[80] The north side of the St. Lo-Periers Road was selected as the location to concentrate forces for a breakthrough. Here the ground was high and dry, the hedgerows thinned out just enough, and the road network could serve as both a line of departure and a recognizable control measure for aircraft support.

Massed to conduct the breakthrough were six divisions of Major General J. Lawton Collins U.S. VII Corps. The 4th, 9th, and 30th Infantry Divisions would lead off the ground offensive on a narrow front and open the penetration for the following three divisions to exploit.[81]

Facing the American First Army was the German Seventh Army. The Goodwood offensive by the British to the north had attracted seven and a half German panzer divisions leaving only one half of a panzer division facing the Americans. These included 26 Panther tanks and 50 lesser medium tanks.[82] Worst yet for the German 7th Army, their commander, General Hausser, had committed their only mobile reserves during preliminary fighting on the Cotentin Peninsula. Thus, for the Cobra offensive the German 7th Army would have no readily available reserve.[83] Facing the onslaught of VII Corps in the vicinity of the anticipated breakthrough was only the badly decimated Panzer Lehr Division.

In order to facilitate the breakthrough of ground forces the American First Army planned a massive aerial bombardment to precede the ground attack. This massive bombardment was concentrated in box 3 1/2 miles wide by 1 1/2 miles deep, just across the St. Lo-Periers line of departure.[84]

SUCCESSIVE OPERATIONS

Basically, Operation Cobra was conducted to pave the way for successive operations. The limited supply lines flowing through the Normandy beachhead were considered by Allied planners to be insufficient to sustain follow on offensives into France. Thus, the objective of the Cobra offensive was to capture the numerous Brittany ports which could be used better to supply Allied advances.[85]

In order to support the breakthrough to the Brittany Ports, certain logistic preparations were undertaken by First Army. The armor division planned to carry twice the usual allotment of fuel, forsaking kitchens for fuel.[86] The tremendous wheeled mobility of the American First Army would facilitate pushing fuel up to resupply advancing armor units as well.

In addition to the Bocage hedgerows which served as an obstacle to advance, the Americans were also suffering a severe shortage of artillery ammunition to support the breakthrough. Increasingly, the First Army began to depend on the Air Force to serve in the role of aerial artillery. Given the conditions of good weather, aircraft could support successive operations in depth better than slow displacing artillery.[87]

OPERATIONAL EXPLOITATION OF A TACTICAL SUCCESS

The U.S. VII Corps was to effect the breakthrough penetration for the First Army. The penetration was to be conducted by three infantry divisions, following a heavy aerial bombardment of German frontline forces. The 1st Motorized Division was then to follow and advance to Coutances 15 miles into German occupied France. The 2nd and 3rd Armored Divisions would then follow and exploit past the 1st Motorized Division to Avranches (a distance of thirty miles behind the German

front line trace). At this juncture one armored division would hold the shoulder of the penetration against counterattack and the other would turn into the Brittany Peninsula to seize the needed ports.[88]

In order for this tactical penetration to be exploited into an operational success, preliminary combined arms training was undertaken by First Army units. This included experimentation with tactics to breach the hedgerows of the Bocage and techniques to enhance air support.

Over 60% of First Army's Sherman tanks were outfitted with the Rhino hedge cutting devices. This insured that the capability to breach hedgerows was available at the lowest levels. To facilitate better armor-infantry cooperation, procedures were developed with pyrotechnique signals, colored panels, and telephones mounted on the rear decks of tanks to orchestrate infantry and armor actions.

A great deal of cooperation was also developed between the ground forces and close support aircraft. Forward observers were trained to accompany ground units. Radios were mounted in tanks that were capable of communicating with supporting aircraft. The intent was to maximize the responsiveness and accuracy of deep fires supporting exploitation.[89]

DEEP BATTLE

In spite of the close cooperation that existed between ground support pilots and ground forces, that cooperation did not extend to the medium and heavy bombers of the Army Air Force (AAF). Doctrinally, the AAF judged close support targets as priority three behind air superiority and isolation of the battlefield.[90] Such targets were viewed by the AAF as an uneconomical use of air power.

The AAF's diffidence in this regard often proved detrimental to the support of army ground operations. Operation Cobra would illustrate this. The initial preparatory air bombardment conducted by these heavier bombers just south of the St. Lo-Periers road was flown not parallel to the road as previously planned and agreed for (to prevent fratricide caused by short bombing) but right overhead of U.S. ground troops. Weather complications forced a recall order from England for the 1600 plane formation flying this carpet bombing. Because of communications problems, not all aircraft were notified.

Fratricide occurred when the lead bombardier of a 300 plane formation tried to correct his bomb release mechanism and accidently dropped his bomb load prematurely. The rest of the formation dropped their loads based on his action causing 156 U.S. ground casualties.

Since adequate carpet bombing was integral to the success of the breakthrough plan, ground and air planners argued furiously over how to recover from this initial abortive bombing. U.S. artillery assets were incapable of replacing the planned air strikes because of ammunition shortages and lack of a cohesive overall artillery fire plan. Finally, air planners convinced General Bradley and his staff that in order to initiate a full airstrike at the earliest possible opportunity against the now forewarned Germans, a subsequent carpet bombing would continue to fly perpendicular to the St. Lo-Peries Road and directly over U.S. ground troops.

The next day the carpet bombing again commenced. Once again, 77 aircraft bombed short causing 601 U.S. ground casualties and stunning front line U.S. soldiers preparing to attack. However, at this juncture fortune

smiled upon the clumsy joint efforts of U.S. Army and Air Forces.[91]

Major General Fritz Bayerlein of the German Panzer Lehr Division which was defending the terrain of the intended penetration assumed that the first day's carpet bombing was the trigger for the ground assault. He did not realize the initial carpet bombing had not met allied expectations and would be conducted again. Thinking the bombings over, Bayerlein pushed his forces forward and massed them at the anticipated point of ground attack. Here Bayerlein's Panzer forces were slaughtered in the open by the second carpet bombing. According to Bayerlein, 70% of his troops were killed, wounded, or crazed by this 4150 tons of air delivered ordinance.[92]

Through the penetration created by this bombardment U.S. ground forces swept forward in close cooperation with supporting ground attack aircraft. The mobility of U.S. armored forces was greatly enhanced by the Rhino devices mounted on U. S. tanks. These devices facilitated off road movement, breaching hedgerows in an average of 2 1/2 minutes.[93] Conversely, counterattacking German armor without Rhino devices were road bound and therefore easily located and engaged by U.S. ground support aircraft. Along just one road network U.S. ground support aircraft destroyed 66 tanks, 204 vehicles, 11 guns, and damaged another 56 tanks and 55 vehicles.[94]

The U.S. breakthrough plan had envisioned an envelopment of German forces by U.S. VII and VIII Corps in vicinity of the town of Countances, 15 miles deep in the German defenses. Yet, the disposition of the fleeing enemy rendered this impractical and U.S. VIII Corps was now given a exploitation and pursuit role by Bradley.

The enormity of the U.S. advance surprised both Germans and Americans alike. The Germans having experted the typical broad front American advance, and unaware of the capability of the Rhino tank, found themselves rapidly overwhelmed by advancing U.S. armored columns. At night American and retreating German columns often became intermixed. In one instance General Bayerlein was almost captured as U.S. forces bypassed the building in which he was issuing an operations order. Likewise, U.S. forces advanced to Avaranches more than 30 miles behind the initial German defense without sustaining significant casualties.[95]

At this juncture, the door to the Brittany ports was now opened according to plan; but the door to Paris 160 miles distance to the east was opened as well. General P. Wood of the Fourth Armored Division, realizing the extent that German forces were in disarray, argued to continue immediately the advance west towards Paris. He was supported but less enthusiastically by his army commander Patton. Bradley rigorously adhered to the initial limited objectives set by Cobra in Brittany and focused the American efforts solely in that direction.

Bradley's decision to continue as planned into Brittany allowed the Germans in the west to regroup. The opportunity to exploit east past disorganized German forces was lost. It now would take a month of bloody fighting for the Allies to reach Paris. As for the numerous Brittany Ports, most were damaged or sabotaged by the Germans, and several ports were so well defended that the German occupiers did not submit to Allied forces until the end of the war. In retrospect, the Brittany ports added nothing to the Allied war effort.[96] In fact, operations in Brittany significantly degraded the available stores of

munitions and fuel that would become increasingly scarce in the upcoming race across France.[97]

UNITY OF COMMAND

The Cobra breakthrough operation was hampered by a lack of unity of command. All Allied efforts, although well intended, were not focused on the common goal of achieving the breakthrough. Unity of command was degraded by three factors: coalition rivalry, interservice squabbling, and conflicting doctrinal interpretations.

Bradley's American First Army was initially under the control of the British 21st Army Group as the overall ground command for the amphibious invasion (see chart page 59). Yet, this temporary marriage of convenience would change once the Americans had an opportunity to activate another army. When this occurred they would also establish a coequal 12th Army Group headquarters. The vagueness about when the American army group headquarters would be activated constrained the necessary cooperative British and American efforts required to break out of the beachhead. Both armies tended to fight separately against the Germans. Montgomery, acting as overall ground commander, was hesitant to issue orders that might make his American subordinates baulk. At the same time he held a parochial view envisioning all American actions as supporting the major British effort. This behavior did little to gain American trust and cooperation.

In addition to coalition rivalry, unity of command during the Cobra operation was hampered by inconsistent doctrine within the U.S. Army.[98] Without a consensus on doctrine, American commanders at various levels executed the Cobra operation as their instincts dictated, often working at cross purposes.

Omar Bradley was a cautious commander, and as such was suited to the U. S. Army pre-war doctrine of linear battle and broad front advances. Bradley had a soul mate in General Courtney H. Hodges, who served as his First Army commander, and who had earlier been his deputy.[99] Hodges, like Bradley, preferred straight forward advances and viewed deep maneuver as tricky and uncertain business.[100] To the discomfort of both Bradley and Hodges, the Cobra breakthrough would thrust them into a battlefield environment where linearity was the exception not the rule.

Bradley's other army commander, Patton, contrasted greatly with the Army Group commander's studied conservatism. Patton personified boldness, audacity, and in Bradley's view, impetuosity and a propensity for self-aggrandizement.[101] Other like-minded commanders with a flair for maneuver like J. Lawton Collins, Robert W. Grow, and John S. (P) Wood served within 12th Army Group. Many had earlier been protege's of Patton.[102] These officers intuitively understood the opportunities that could be presented by a breakthrough operation and were prepared to exploit those opportunities wherever they might lead.

Patton greatly disapproved of the plodding methods used by Bradley and Hodges. Patton recorded in this pre-Cobra entry in his diary:

> Bradley and Hodges are such nothings....They try to push all along the front and have no power anywhere. All that is necessary now is to take chances by leading with armored divisions and covering their advance by air bursts. Such an attack would have to be made on a narrow sector, whereas at present we are trying to attack all along the line.[103]

Yet, Patton, refused to question the Army Group commander's guidance when on 3 August, P. Wood pleaded to redirect the Cobra offensive from the eastern

Brittany ports to western France and Paris. Patton understood the limits of his fragile relationship with Bradley. Instead, to avoid confrontation, Patton broadly interpreted Bradley's guidance and split his forces. Patton sent elements into Brittany and at the same time committed forces to 12th Army Group's eastern flank with an eye toward moving west at the first opportunity.

Patton's actions provoked both Bradley's wrath and a response. Bradley characterized Patton's sleight of hand in the following manner:

> George seems more interested in making headlines with the capture of Brest than in using his head on tactics....We can't take a chance on an open flank.[104]

The Army Group commander then undertook the unprecedented action of interceding and countermanding Patton's order.

This measure by Bradley caused considerable confusion within Third Army. It required the immediate transfer of a division between subordinate corps and significantly curbed the momentum of the ongoing exploitation.[105] Patton accepted this rebuke as graciously as possible but recorded privately:

> I did not agree with him ... he was getting the British complex of over caution.[106]

This incident serves to illustrate the detrimental effect conflicting personalities had on the unity of command for the Cobra operation. Without a common framework of breakthrough doctrine to align their actions, Bradley and Patton instead worked at cross purposes.

In the doctrinal void poised by the Cobra breakthrough, Bradley chose to rigidly anchor himself

and his command to the security of the original Cobra plan amid the bewildering events and opportunities as they presented themselves.[107] General P. Wood would later caustically remark:

> There was no conception of far-reaching directions for armor in the minds of our top people.... I could have been there in the enemy vitals in two days. But no! We were forced to adhere to the original plan.... It was one of the colossally stupid decisions of the war.[108]

Thus, 12th Army group lost the opportunity to conduct a battle of annihilation and destroy all German forces west of the Seine river in one bold stroke.

Unity of command was also obstructed by interservice rivalry between Allied air and ground commands. Both the RAF and the AAF owed their very existence as autonomous commands to a doctrine of strategic bombing. After Pearl Harbor, President Roosevelt himself had given the AAF the mission for the strategic bombing of Germany and Japan.[109] Adherents of this airpower doctrine felt they could win the war in isolation of ground and naval efforts. Thus, only superficial cooperation existed between Allied air and ground commanders, with each fighting their separate war.

CONCLUSION

Having completed the review of historical breakthrough operations, an assessment of our research is now appropriate. Analysis has shown that the essence of such operations can be captured. This study has endeavored to do that using seven principles derived from the assessment of breakthrough theory.

The Soviet military which conducted two of the breakthrough operations analyzed, based their doctrine upon a theory which was encompassed in these principles. For the Soviets any objectives not fully met during a breakthrough operation could be explained

by a failure to adhere to one or more principles governing breakthrough theory. In this manner, the Pogoreloye Gorodische operation, although generally successful, failed to attain all planned breakthrough objectives.

Analysis has shown that the executors of the Pogoreloye Gorodische breakthrough fell short in fully adhering to the principles of simultaneity of attack, successive operations, deep battle, and unity of command. In regards to simultaneity of attack, broad attacks across the front were not powerful enough to force commitment of all German reserves. For successive operations, the logistical support was not robust enough to allow fueling and arming of forces for continuous attack against the Germans. Deep battle was obstructed by air forces that were insufficient in strength and training to neutralize effectively targets in the depth of the German defense. Additionally for deep battle in the Pogoreloye Gorodische operation, the combined arms aspect of the mobile group was an emerging concept and thus awkwardly executed with insufficient power. Finally, unity of command was hampered by the ad hoc command organization of the new mobile groups and also by the absence or a Corp level command between Army and Division which hampered span of control.

Turning to the Soviet Lvov-Sandomir breakthrough operation, full and complete success was a result of following the principles specified by theory. In this operation all principles were adhered to. Shortfalls indicated previously in the Pogoreloye Gorodische operation had been overcome.[110]

For the Lvov-Sandomir operation, simultaneity of attack was now facilitated by more powerful thrusts across a broad front which triggered the commitment of

German reserves. The logistical framework to support the Lvov-Sandomir offensive was robust enough to sustain successive operations into the depth of the German tactical and operational defenses. Deep battle was well executed due to total air supremacy over the breakthrough corridor and the demonstrated combined arms capabilities of the powerful tank armies which now served the Soviets as mobile groups. For the Lvov-Sandomir operation, unity of command was facilitated by Corps headquarters interspersed between the Army and Division levels, and formation of a dedicated command and control framework for the mobile group tank army.

Whereas both Soviet breakthrough operations were conducted by attempting to adhere to theoretical principles, the Americans conducting the Cobra breakthrough were operating in a theoretical void. The Americans had no conceptual framework upon which to build a breakthrough operation.[111] Cobra was conducted in some desperation when all other methods of escaping the Normandy beachhead had failed.

In spite of the ad hoc development of the Cobra operation, there was utility in retrofitting the criteria of our theoretical principles onto the American breakthrough operation. In this manner, we identified and categorized what actions succeeded as well as the gaffes and missed opportunities that insued.

Although the Cobra operation was a success, the Americans never comprehended the magnitude of what could have been achieved because of their theoretical void.[112] In this instance, the breakthrough could have conceivably been carried to the gates of Paris, short circuiting a month of fighting with reorganized German defenders.

Using our theoretical principles to analyze the Cobra breakthrough we see that the Americans neglected several principles in the design of their operation. Although simultaneity of attack was achieved to facilitate the breakthrough, it occurred by happenstance and was not planned by the American army or the Allied First Army group. The tactical success which set the conditions for exploitation would never have occurred if not for the fortunate action of General Bayerlein in exposing most of his combat power after the initial aborted bombing. This enemy action undertaken to face ground attack, effectively exposed the Germans for the unexpected second carpet bombing with devastating results.

Finally, unity of command greatly hindered the scope of success in Cobra. Coalition rivalries, parochial interservice squabbling between air and ground commands, and commanders anchored in a doctrine which blinded them from the magnitude of the possible limited the scope of the Cobra success.

IMPLICATIONS

The objective of this analysis was to determine those factors necessary to conduct successful breakthrough operations. The conclusion drawn from this study is that three factors govern the capability to conduct successfully breakthrough operations.

First, analysis of theory shows that the essence of breakthrough operations can be captured in various principles. These principles provide a framework on which the distinctive and complex nature of breakthrough can and must be expressed in doctrine.

Second, the comparison between Soviet breakthrough operations and the American Cobra breakthrough indicates the merit of having a doctrinal framework of principles from which to extrapolate. Such a doctrinal

framework ensures that the military leadership is operating upon a common operational and tactical basis and provides guidelines for the necessary common base of planning, joint service cooperation, and sequencing of actions.

Third, force structure and command lines must be aligned to support a breakthrough doctrine. The Cobra experience shows the limits imposed by ad hoc air-ground and logistical relationships in support of deep ground maneuver.

In 1973, speaking of the current military doctrine the distinguished historian, Michael Howard, stated of current military doctrine:

> I am tempted indeed to declare dogmatically that whatever doctrine the armed forces are working on now, they have got it wrong. I am also tempted to declare that it does not matter that they have got it wrong. What does matter is their [the military's] capacity to get it right quickly when the moment arrives.

Howard further noted that:

> ... it is the task of military science in an age of peace to prevent the doctrines from being too badly wrong.[113]

Howard's comment suggests that if a sound doctrinal framework exists for a military organization, the ground work is set for the necessary extrapolation to adapt to the unexpected and unanticipated in future conflict.

In our analysis of breakthrough operations, we see that Soviet doctrine anticipated the conduct of such operations, and thus the Soviets were able to refine and maximize this offensive capability throughout the war. Conversely, the Americans without a doctrinal framework that recognized breakthrough operations attempted such an operation only as a last desperate resort. In spite of the general success of the Cobra breakthrough, the Americans viewed that operation as an

anomaly. There was no available construct for the Americans to capture or measure the success of the operation, or for that matter, derive a formula to repeat it.

Upon completion of the Cobra operation, the Americans and the Allies reverted immediately back to broad front offensives attempting to pressure the Germans everywhere and push them slowly towards the heart of Germany as one might sweep with a broom. In this sluggish style, the Allies laboriously pushed through the Ardennes and the Netherlands eventually to strangle the Third Reich almost a year after the Normandy landings.

In a manner, history has now repeated itself. In 1991, the U. S. Army along with sister services and other coalition countries conducted an offensive to an operational depth against a deeply echeloned Iraqi defense. The U.S. Army doctrinal capstone manual FM 100-5 did not anticipate nor establish a framework for an offensive breakthrough operation of this magnitude.

Fortunately, for the U.S. Army, political circumstances allowed planners almost six months to assess the enemy and the situation before action was required. Given this breathing space, the U.S. Army was able to adapt to the circumstances at hand, develop and resource an appropriate offensive scheme, and then execute an offensive with brilliant results.

In future military endeavors, the U.S. Army cannot anticipate the luxury of half a year of planning to adjust to the situation at hand. Nor, can we expect our future opponents to display the wholesale ineptness displayed by the Iraqi political and military leadership.

Surely, our Mideast victory could never have been so grand in scope had the Iraqi military not assumed

that an allied ground offensive would be limited to only Kuwait and instead continued the construction of obstacles belts and fortifications in depth to anchor them against the inhibiting terrain further west in Iraq. Likewise, had the Saddam regime been able to better mobilize political will, Iraqi soldiers would have more resolutely defended their positions and the cost for Allied victory would have been considerably higher.

What lays before us now is a decision. On one hand, as in the aftermath of the Cobra success, we can blindly tout the virtues of our current doctrine, remain distainful of change, and revert to time honored established methods of warfare. Conversely, we could develop a framework of principles to capture the essence of the Desert Storm breakthrough, incorporate it in our doctrine and balance FM 100-5's current NATO defensive orientation. Such a modification to an existing sound doctrine would insure a secure departure point for future offensive operations of a similar nature. This course of action would take the preemptive step of preventing our doctrine from being too badly wrong in the next war as Michael Howard suggested.

V.K. Triandafillov would paint a more ominous picture of the choice before us. Speaking of the nature of breakthrough operations Triandafillov stated in 1929:

> Armies not wishing to understand these simple truths, armies unprepared for actions in such massive groupings, cannot count upon great victories in future war.[114]

ENDNOTES

1. Radziyevskiy, A. T. The Breakthrough, (from the Experience of the Great Patriotic War). (1979), p. 2.

2. Schneider, James, J. "V. K. Triandafillov, Military Theorist." The Journal of Soviet Studies. Vol 1, (September 1988), pp. 287-89.

3. Simpkin, Richard, E. Red Armour: An Examination of the Soviet Mobile Force Concept. (1984) p.10. According to Simpkin: "...the two pillars of Soviet thought are Triandafillov and Tukhachevskii, both Tsarist officers who might, respectively, be seen as Russia's von Clausewitz and Guderian."

4. Schneider. p. 289.

5. Rice, Condoleezza. "The Making of Soviet Strategy." The Makers of Modern Strategy, from Machiavelli to the Nuclear age. (1986), pp. 664-5.

6. Triandafillov, V. K. The Nature of the Operations of Modern Armies. (1929), p. 110.

7. Ibid. p. 141.

8. Ibid. p. 157.

9. Ibid. pp. 167-8.

10. Ibid. p. 79.

11. Ibid. p. 124.

12. Ibid. p. 139.

13. Ibid. p. 207.

14. Schneider. pp. 303-304.

15. Simpkin. p. 143. Tukhachevsky was responsible for the formation of the 'Kalinovski Mechanized Corps' formed round 1st Mechanized Brigade in 1931-32. These corps became the operational armor formations of the Soviet Army. Prior to Tukhachevsky's purge approximately 20 mechanized corps existed within the Soviet Army. All of these corps were dismantled during Tukhachevsky's subsequent fall from grace.

16. Ibid. p. 38. "Over the period 1936-39, at the start of which Tukhachevskii's views held sway, battle experience gained on Chinese frontier and Finland, and with the T26 tank in the Spanish Civil War, gave new impetus to tank design and sparked off revolutionary thinking. This period saw the adoption of armour

capable of keeping out shell splinters, electric welding for armor plate, of a special tank engine, the C2, and the new types of running gear, including the excellent Christie suspension....This era also saw the conception of the assault gun (SU)."

17. Rice. p. 665.

18. Tukhachevsky, Mikhail. New Problems in Warfare. (1931), p. 5.

19. Schneider. pp. 303-304.

20. Tukhachevsky. p. 49.

21. Ibid. p. 5.

22. Ibid. p.15.

23. After Tukhachevsky's purge, Marshal Voroshilov came to command the Soviet military establishment. Voroshilov was a calvary officer and along with Marshal Budenny (also a cavalry officer) was one of only two Soviet Marshals to survive Stalin's purges.

Both Voroshilov and Budenny had served with Stalin as far back as the revolution. Stalin used these generals to counterbalance Tukhachevsky's prestige during the war with Poland in the 1920's. Generally, those associated with Voroshilov had a low opinion of his military abilities. As a cavalry officer, he had long been an opponent of widespread mechanization. Under Voroshilov, research and experimentation on mechanization ground to an abrupt halt and stood undeveloped beyond the point of Tukhachevsky's 1936 field regulations. The dismal performance of the Soviet Army in Finland sparked a revision of regulations beginning in 1940, but before changes could be incorporated into soviet doctrine, the Germans invaded.

Probably the high water mark of the anti-mechanization forces within the Soviet military came during the January war games of 1941. During these games Marshal Kulik argued for a return to divisions with horse drawn transport, a complete reversal of mechanized theories. In light of this mindset within the Soviet military, the Soviet Army was arrayed in forward static positions just prior to the German invasion in June of 1941. Soviet armor was dispersed throughout the Soviet defense and incapable of concentration. Under these conditions, the Soviet Army could not hope to defeat the highly mobile German armor forces. The Soviet Army would pay a high price in men and equipment because of these short sighted policies. Erickson, John. The Road to Stalingrad. (1975), pp.7, 15, 26, 30, & 51.

24. On the second day after the German invasion, the central committee established the STAVKA GLAVNOVO KOMMANDOVANIYA. The STAVKA would serve as GHQ for the Soviet military for the duration of the World War II. It's staff included Marshals of the Soviet Union, the chief of the General Staff, as well as the heads of Naval and Air Forces and the heads of arms and services. The STAVKA was responsible for formulating strategic provisions and directives. Erickson, Stalingrad. pp.136-7.

25. Depuy, T. N. & Associates. Historical Scenarios of Soviet Breakthrough efforts in World War II. (1984), p. 9.

26. Ibid. pp. 14-18, 21.

27. Ibid. pp. 7 & 21.

28. Ibid. p. 20.

29. Ibid. pp. 8-10.

30. Ibid. pp. 15-16.

31. Ibid. p. 7.

32. Ibid. pp. 16-17.

33. Ibid. p. 139.

34. Ibid. pp. 52 & 65.

35. Ibid. p. 11.

36. Ibid. p. 37.

37. Radziyevskiy. p. 29.

38. Ibid. p. 54.

39. After the dramatic setbacks to the Soviet Army in 1941 and the accompanying material and personnel losses, the Soviet senior leadership attempted to reverse conditions where inexperienced junior commanders and staff frittered away valuable special purpose assets like air defense weapons and tanks. To stem these losses, STAVKA implemented circular instruction 01 in July of 1941 which centralized limited armor assets in brigade packages at Army level. This action was later reversed a year later as Soviet war production increased and more tanks became available. Soviet industry produced 4,500 tanks during the winter of 1941-1942, leading to the resurgence of the tank heavy mobile group in accordance with STAVKA directive dated 10 January 1942. The Twentieth Army

would try it's first attempt to institute the mobile group concept during the Pogoreloye Gorodischche offensive. Erickson, John. The Road to Stalingrad. (1975); p. 172. Simpkin: p. 142. Ziemke, Earl, F. Stalingrad to Berlin: The German Defeat in the East. (1984), p. 32.

40. Erickson. p. 382.

41. Depuy. pp. 138-139.

42. Ibid. pp. 14-15 & 17.

43. Ibid. pp. 141-142.

44. Radziyevskiy. p. 29.

45. Depuy. pp. 137-138.

46. Ibid. p. 138-139.

47. The elimination of the corps level of command was another action that had been directed by the STAVKA circular instruction 01. STAVKA believed corps headquarters were inhibiting combat operations and administration, largely because of the widespread inexperience of staff officers at that level. The corps level of command would later be reinstituted after assessment of the battlefield experiences conducted in the summer of 1942. Erickson. p. 173.

48. Depuy. p. 91.

49. Ibid. p. 93.

50. The Soviets consider that surprise is attained if the enemy can be deceived as to the size of a troop concentration and it's level of preparedness. Glantz, David. Soviet Use of War Experience: Tank and Mechanized Corps Exploit the Penetration. (1988), p. 17.

51. Depuy. p.115.

52. Ibid. p.91.

53. Ibid. 137.

54. Ibid. p. 101.

55. In terms of artillery density XV Rifle Corps was averaging 155 tubes per kilometer and 206 tubes per kilometer in the area of the main effort. This compares to the 120 tubes utilized in the breakout sector during the Pogoreloye Gorodische two years earlier. Depuy. pp. 101 & 140.

56. By the end of 1942, Marshall Fedorenko was able to convince the state defense committee and Stalin of the need to form tank armies, (of one or two tank corps and one mechanized corps). In early 1943, six tank armies were formed and served as the nucleus of front mobile groups for the rest of the war. Erickson. p. 82. House, Jonathan, M. Toward Combined Arms Warfare: a Survey of 20th-Century Tactics, Doctrine, and Organization. (1984), p. 102.

57. Depuy. p.99.

58. Ibid. p. 101.

59. Ibid. pp. 132 & 140.

60. Mobile groups became the principle striking arms of Front and Army commands. Glantz. p.5.

61. Depuy. p. 106.

62. Ibid. p.108.

63. Ibid. pp. 113 & 119.

64. "...it is expedient to place units of tactical aircraft and, above all, those of ground attack and fighter aircraft, for the duration of their action in the operational depth of the enemy defensive zone, under the command of the tank and mechanized armies." Glantz. p.8.

65. Depuy. p.118.

66. Ibid. pp. 122-124.

67. Ibid. p.134.

68. Radziyevskiy. p. 109.

69. Doubler, Michael, D. Busting the Bocage: American Combined Arms Operations in France, 6 June-31 July 1944. (1988), p.21.

70. Weigley, Russell, F. Eisenhower's Lieutenants. (1981), p. 114.

71. Ibid. pp. 49-52.

72. Ibid. p. 135.

73. Ibid. pp. 126-128.

74. Ibid. p. 137.

75. Ibid. p. 171.

76. Ibid. pp. 144-146 & 152.

77. Ibid. pp. 113-114.

78. An Army sergeant from New York city named Curtis Culin devised the Rhino devices. They were simply tusklike prongs that fit onto the front of the tank allowing the tank to plow through the hedgerow as opposed to climbing over the hedgerow thus being exposed to enemy fire. Miller, Robert, A. August 1944: The Campaign for France. (1988), p. 13.

79. Doubler. p. 17. Weigley. P. 149.

80. Weigley rates Cobra as: "...one of the few occasions during the European Campaign when the Americans, inclined by the consciousness of bountiful overall strength to attack on broad fronts, acted in recognition of the value of concentration." Weigley, Russell F. "From the Normandy Beaches to the Falaise-Argentan Pocket: A Critique of Allied Operational Planning in 1944." Military Review. (September 1990), p. 52.

81. Weigley. Eisenhower's Lieutenants. pp. 150-151.

82. Ibid. p. 118.

83. Ibid. p. 126.

84. Blumenson, Martin. Liberation. (1978), p. 47.

85. Weigley. Eisenhower's Lieutenants. p. 137.

86. Ibid. p. 174.

87. Ibid. pp. 151-152.

88. Ibid. pp. 149-150.

89. Doubler. pp. 35-39.

90. Greenfield, Kent, Roberts. Army Ground Forces Study No. 35: Army Ground Forces and the Air-Ground Battle Team. (1948), p.46.

91. Weigley. Eisenhower's Lieutenants. p. 150-153.

92. Blumenson. pp. 54-56.

93. Weigley. Eisenhower's Lieutenants. p. 155.

94. Ibid. pp. 160 & 163.

95. Ibid. pp. 156-159.

96. Ibid. p. 185.

97. Weigley. Military Review. p.56.

98. The 1941 version of the U. S. Army's capstone manual FM 100-5 makes no mention of breakthrough operations. There are no references to breakthrough operations in the 1930 and 1938 versions of FM 100-15 Large Unit Operations. Yet, the 1942 version of FM 100-15 does devote several pages to breakthrough operations.

99. Prior to the war, Hodges had been a trap shooting partner of Bradley's at Ft. Benning. Bradley, Omar. A Soldier's Story. (1951), p.358.
Miller: p. 33.

100. Blumenson, Martin. Breakout and Pursuit. (1984) p.341.

101. Hastings, Max. Overlord. (1984), p.281.

102. Blumenson, Martin. Breakout and Pursuit. (1984), p.351.

103. Blumenson, Martin. The Patton Papers. (1974), p. 482.

104. Miller. p. 30.

105. Ibid. p.31.

106. Blumenson, Martin. The Patton Papers. (1974), p. 498.

107. Weigley. p. 186.

108. Liddell-Hart, B. H. The History of the Second World War. (1970) p. 557.

109. House. p. 130.

110. In 1943 the Red Army published an analysis of tank and mechanized corps operations between November 1942 until February 1943. Operations undertaken during this period represented a test bed for the mobile force concepts and served as the basis of Soviet mobile force operations the rest of the war. The essence of the 1942-1943 experience was recorded for dissemination and future implementation in the Soviet document called Collections of the Materials for the Study of War Experience. Glantz, p. 1.

111. Glantz, David. American Perspectives on Eastern Front Operations in World War II. (1987) p.6. In Glantz's words: "Conditions were such that The U. S. Army as a relative newcomer to the World War II fighting was incapable of deriving much from the ongoing Soviet war experience." Glantz states further: "It is clear Americans knew in general about the war in the East. They knew it was a massive struggle with vast implications for the success of Allied strategy in the West. The names Leningrad, Moscow, Stalingrad, and Kursk were familiar ones, and Americans could appreciate the impact of Soviet victories at each location. But that was perhaps of the sum of American understanding. Certainly, there was little in the American military experience to condition Americans to conceive of operations as large as those occurring in the East, and what is not experienced cannot be fully appreciated."

112. Weigley remarks: "While the U. S. high command meticulously planned the tactics of breaking out in Cobra, they did not explore the operational implications of the tactical plan and how best to exploit the prospect of pushing fast and far into the interior of France." Weigley. Military Review. p. 57.

113. Howard, Michael. Chesney Memorial Gold Medal Lecture given on 3 October 1973.

114. Triandafillov. p. 124.

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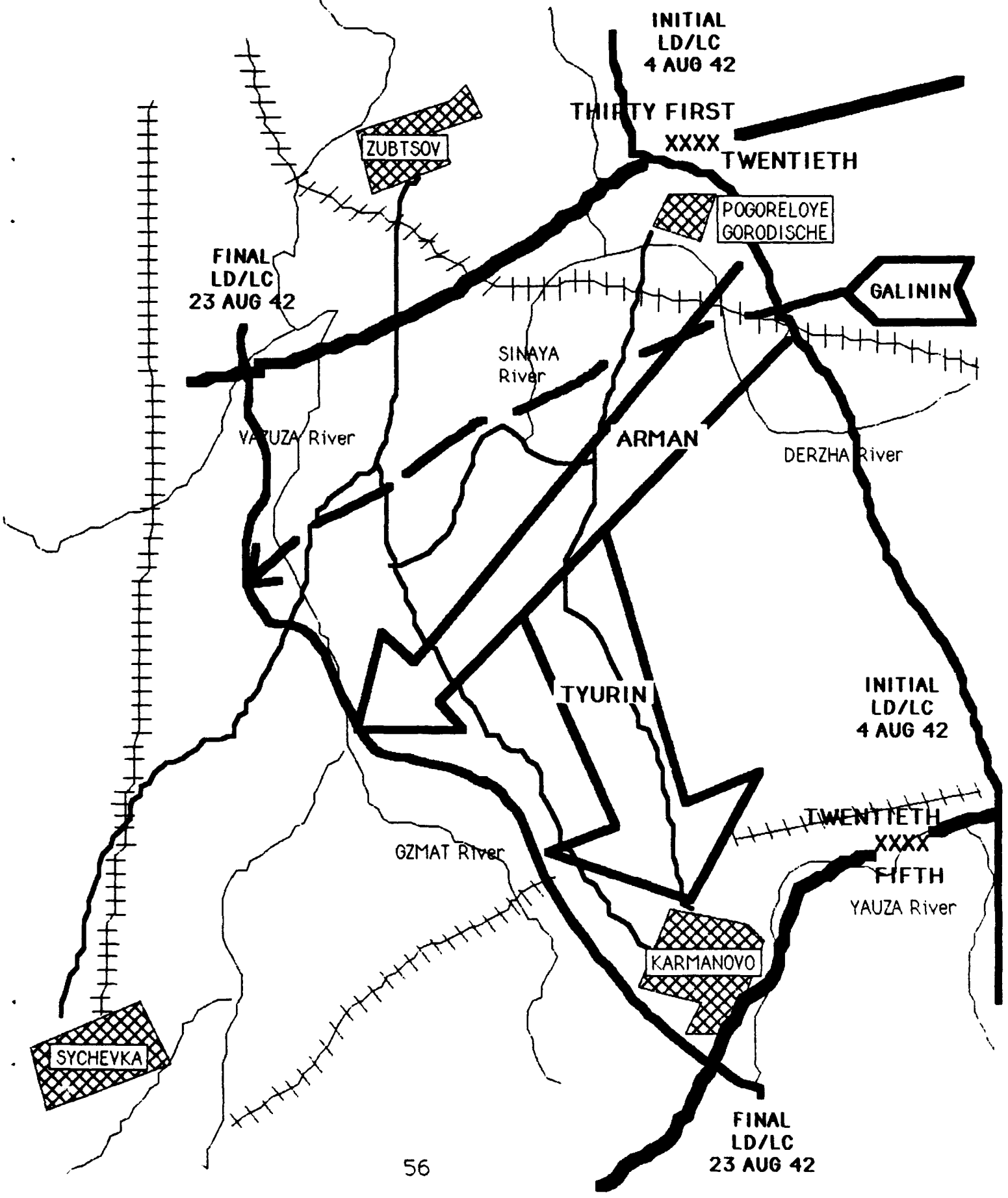
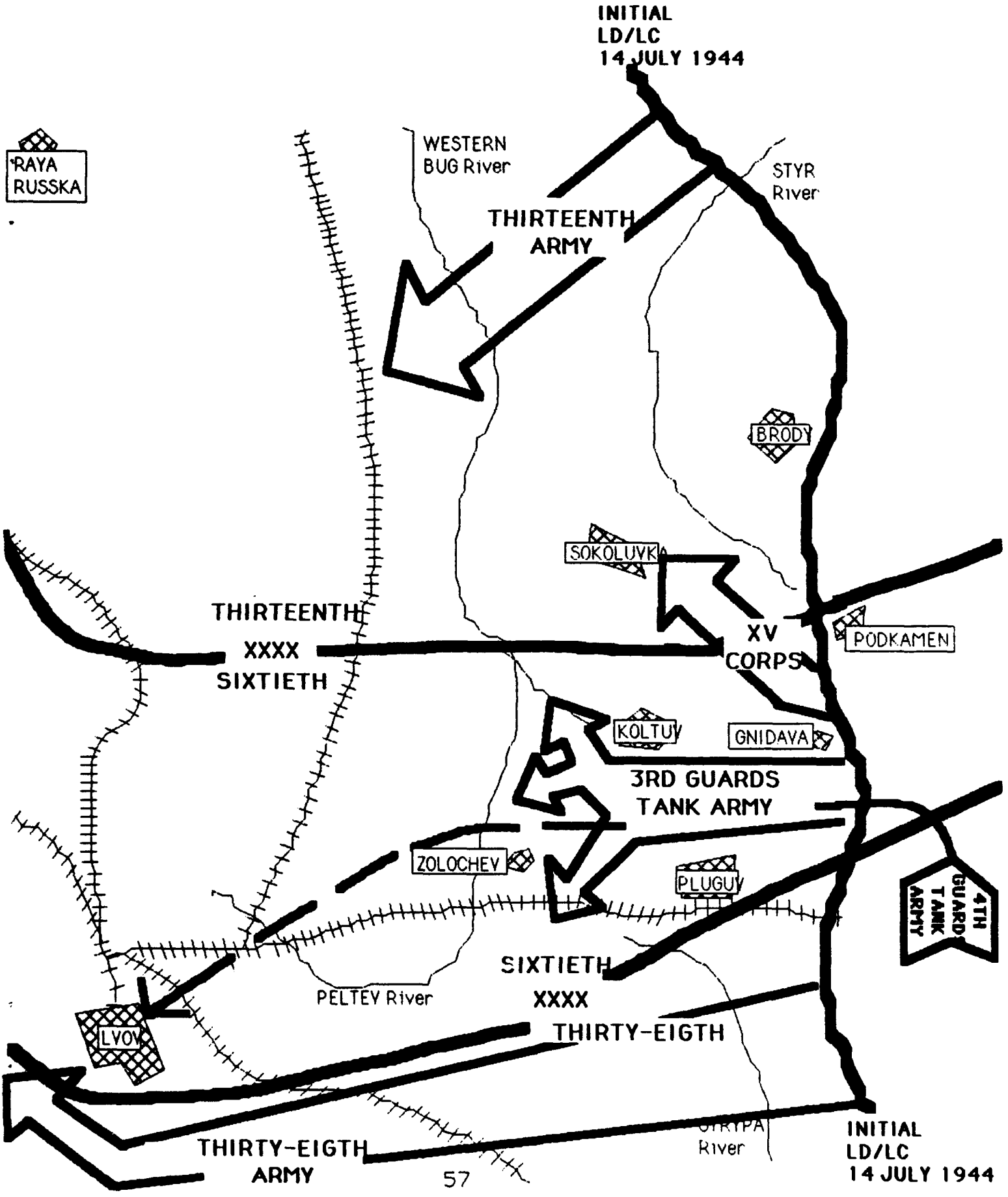
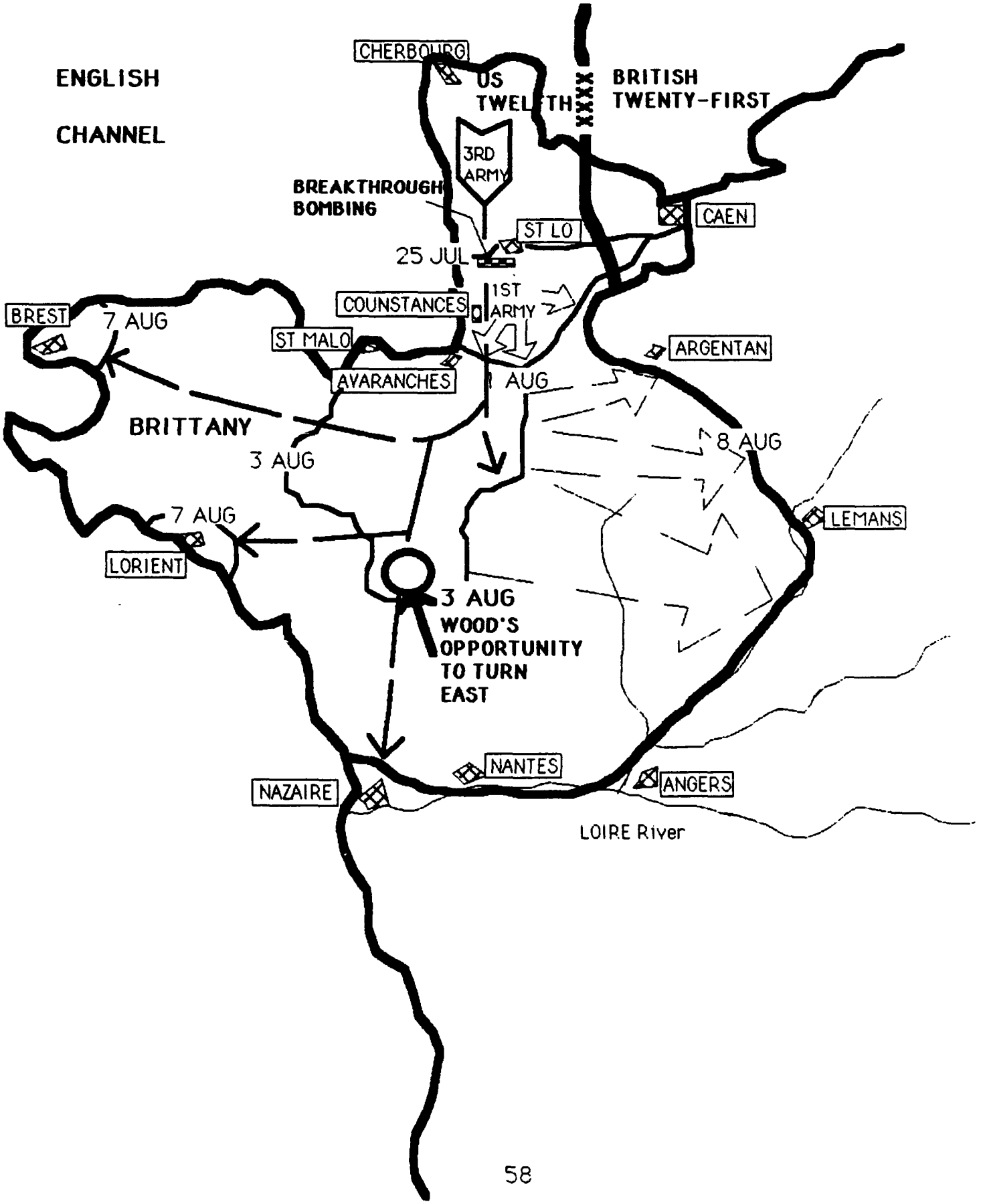
APPENDIX A - POGORELOYE GORODISCHE



APPENDIX B : LVOV-SANDOMIR 14 JULY 1944



APPENDIX C - COBRA BREAKTHROUGH 25 JUL-8 AUG



APPENDIX D - ALLIED COMMAND STRUCTURE AUGUST 1, 1944